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EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	590	713/156	USPAT	OR	OFF	2006/03/09 10:18
L2	1993	713/175 or 713/176 or 705/75 or 713/157 or 713/158	USPAT	OR	OFF	2006/03/09 10:21
L3	2260	1 or 2	USPAT	OR	OFF	2006/03/09 10:21
L4	53	"digital certificate" and authenticat$3 and drm and secure and authoriz$3 and client$1 and object$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/09 10:22
L5	82	"digital certificate" and authenticat$3 and drm and secure and authoriz$3 and client$1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/09 10:22
L6	6	5 and 3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/09 10:23
L7	6	6 and 3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/09 10:23
L8	0	hug.inv. and herndon.inv.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/09 10:24
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IEEE CNF	IEEE Conference Proceeding
IEE CNF	IEE Conference Proceeding
IEEE STD	IEEE Standard

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☐   **1. Privacy in an identity-based DRM system**
Conrado, C.; Kamperman, F.; Schrijen, G.J.; Jonker, W.;
Database and Expert Systems Applications, 2003. Proceedings. 14th Internatic
1-5 Sept. 2003 Page(s):389 - 395
Digital Object Identifier 10.1109/DEXA.2003.1232053

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1 Software issues: Towards a software architecture for DRM
Sam Michiels, Kristof Verslype, Wouter Joosen, Bart De Decker
November 2005 **Proceedings of the 5th ACM workshop on Digital rights management DRM '05**
Publisher: ACM Press
Full text available: 🔲 pdf(296.34 KB)   Additional Information: full citation, abstract, references, index terms

> The domain of digital rights management (DRM) is currently lacking a generic architecture that supports interoperability and reuse of specific DRM technologies. This lack of architectural support is a serious drawback in light of the rapid evolution of a complex domain like DRM. It is highly unlikely that a single DRM technology or standard will be able to support the diversity of devices, users, platforms, and media, or the wide variety of system requirements concerning security, flexibility, a ...

> **Keywords**: DRM, software architecture

2 Architectures: DRM interoperability analysis from the perspective of a layered framework
Gregory L. Heileman, Pramod A. Jamkhedkar
November 2005 **Proceedings of the 5th ACM workshop on Digital rights management DRM '05**
Publisher: ACM Press
Full text available: 🔲 pdf(295.51 KB)   Additional Information: full citation, abstract, references, index terms

> Interoperability is currently seen as one of the most significant problems facing the digital rights management (DRM) industry. In this paper we consider the problem of interoperability among DRM systems from the perspective of a layered architectural framework. The advantage of looking at the problem from this point of view is that the layered framework provides a certain amount of structure that is very helpful in guiding those working on DRM interoperability issues. Specifically, the layered ...

> **Keywords**: DRM, interoperability, layered architecture

3 Digital rights management for content distribution
Qiong Liu, Reihaneh Safavi-Naini, Nicholas Paul Sheppard

January 2003 **Proceedings of the Australasian information security workshop conference on ACSW frontiers 2003 - Volume 21 CRPITS '03**
Publisher: Australian Computer Society, Inc.

Full text available: pdf(224.63 KB)   Additional Information: full citation, abstract, references, citings, index terms

Transferring the traditional business model for selling digital goods linked to physical media to the online world leads to the need for a system to protect digital intellectual property. Digital Rights Management(DRM) is a system to protect high-value digital assets and control the distribution and usage of those digital assets. This paper presents a review of the current state of DRM, focusing on security technologies, underlying legal implications and main obstacles to DRM deployment with the ...

Keywords: DRM, digital content

4 Information protection methods: Display-only file server: a solution against information theft due to insider attack
Yang Yu, Tzi-cker Chiueh
October 2004 **Proceedings of the 4th ACM workshop on Digital rights management**
Publisher: ACM Press

Full text available: pdf(311.80 KB)   Additional Information: full citation, abstract, references, index terms

Insider attack is one of the most serious cybersecurity threats to corporate America. Among all insider threats, information theft is considered the most damaging in terms of potential financial loss. Moreover, it is also especially difficult to detect and prevent, because in many cases the attacker has the proper authority to access the stolen information. According to the 2003 CSI/FBI Computer Crime and Security Survey, theft of proprietary information was the single largest category of los ...

Keywords: access, digital rights management, information theft, insider attack

5 Digital rights management & protecting the digital media value chain
Marvin L. Smith
October 2004 **Proceedings of the 3rd international conference on Mobile and ubiquitous multimedia MUM '04**
Publisher: ACM Press

Full text available: pdf(95.20 KB)   Additional Information: full citation, abstract, references, index terms

Digital media that is readily & illegally distributed over the Internet and related digital networks has posed major problems for the members of the digital media value chain. Ubiquitous mobile communication devices such as media capable handsets and PDAs have made the problem even larger.Technical approaches to controlling illegal distribution---commonly known as Digital Rights Management (DRM)---have been varied and inconsistent since the shift from analogue media to digital media; but in rec ...

Keywords: combined delivery, digital media, digital rights management (DRM), forward lock, open mobile alliance (OMA), rights expression language (REL), separate delivery

6 Digital rights management for the online music business
Sai Ho Kwok
June 2002 **ACM SIGecom Exchanges**, Volume 3 Issue 3
Publisher: ACM Press
Full text available: pdf(51.88 KB)   Additional Information: full citation, abstract, references, index terms

Digital rights management has become a pressing concern for the online music business. Existing digital rights management systems are backed by two license management models, the tethered model and the untethered model. These two license management models focus on the management of payments and usage rights. The problems with these models are that the tethered model forces consumers to be online, while the untethered model provides relatively less security to the license residing locally. This p ...

Keywords: digital rights management, electronic business, electronic commerce, intellectual property, license management, online music business

7   Security as a new dimension in embedded system design: Security as a new dimension in embedded system design
Srivaths Ravi, Paul Kocher, Ruby Lee, Gary McGraw, Anand Raghunathan
June 2004 **Proceedings of the 41st annual conference on Design automation**
Publisher: ACM Press

Full text available: pdf(209.10 KB)   Additional Information: full citation, abstract, references, citings, index terms

The growing number of instances of breaches in information security in the last few years has created a compelling case for efforts towards secure electronic systems. Embedded systems, which will be ubiquitously used to capture, store, manipulate, and access data of a sensitive nature, pose several unique and interesting security challenges. Security has been the subject of intensive research in the areas of cryptography, computing, and networking. However, despite these efforts, *security is ...*

Keywords: PDAs, architectures, battery life, cryptography, design, design methodologies, digital rights management, embedded systems, performance, security, security processing, security protocols, sensors, software attacks, tamper resistance, trusted computing, viruses

8   Role-based access control on the web
February 2001 **ACM Transactions on Information and System Security (TISSEC),** Volume 4 Issue 1
Publisher: ACM Press

Full text available: pdf(331.03 KB)   Additional Information: full citation, abstract, references, citings, index terms, review

Current approaches to access control on the Web servers do not scale to enterprise-wide systems because they are mostly based on individual user identities. Hence we were motivated by the need to manage and enforce the strong and efficient RBAC access control technology in large-scale Web environments. To satisfy this requirement, we identify two different architectures for RBAC on the Web, called user-pull and server-pull. To demonstrate feasibility, we im ...

Keywords: WWW security, cookies, digital certificates, role-based access control

9   Security in embedded systems: Design challenges
Srivaths Ravi, Anand Raghunathan, Paul Kocher, Sunil Hattangady
August 2004 **ACM Transactions on Embedded Computing Systems (TECS),** Volume 3 Issue 3
Publisher: ACM Press

Full text available: pdf(3.67 MB)   Additional Information: full citation, abstract, references, index terms, review

Many modern electronic systems---including personal computers, PDAs, cell phones,

network routers, smart cards, and networked sensors to name a few---need to access, store, manipulate, or communicate sensitive information, making security a serious concern in their design. Embedded systems, which account for a wide range of products from the electronics, semiconductor, telecommunications, and networking industries, face some of the most demanding security concerns---on the one hand, they are oft ...

Keywords: Embedded systems, architecture, authentication, battery life, cryptographic algorithms, decryption, encryption, hardware design, processing requirements, security, security attacks, security protocols, tamper resistance

10 Scalable public-key tracing and revoking

Yevgeniy Dodis, Nelly Fazio, Aggelos Kiayias, Moti Yung

July 2003   **Proceedings of the twenty-second annual symposium on Principles of distributed computing**

Publisher: ACM Press

Full text available: pdf(1.17 MB)   Additional Information: full citation, abstract, references, citings, index terms

Traitor Tracing Schemes constitute a very useful tool against piracy in the context of digital content broadcast. In such multi-recipient encryption schemes, each decryption key is fingerprinted and when a pirate decoder is discovered, the authorities can trace the identities of the users that contributed in its construction (called traitors). Public-key traitor tracing schemes allow for a multitude of non trusted content providers using the same set of keys, which makes the scheme "server-side ...

Keywords: Broadcast Encryption, Digital Content Distribution, Multicast, Scalability, Traitor Tracing

11 Trustworthy 100-year digital objects: Evidence after every witness is dead

Henry M. Gladney

July 2004   **ACM Transactions on Information Systems (TOIS),** Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(1.24 MB)   Additional Information: full citation, abstract, references, index terms

In ancient times, wax seals impressed with signet rings were affixed to documents as evidence of their authenticity. A digital counterpart is a message authentication code fixed firmly to each important document. If a digital object is sealed together with its own audit trail, each user can examine this evidence to decide whether to trust the content---no matter how distant this user is in time, space, and social affiliation from the document's source.We propose an architecture and design that a ...

12 Formal model and policy specification of usage control

Xinwen Zhang, Francesco Parisi-Presicce, Ravi Sandhu, Jaehong Park

November 2005 **ACM Transactions on Information and System Security (TISSEC),**
Volume 8 Issue 4

Publisher: ACM Press

Full text available: pdf(291.34 KB)   Additional Information: full citation, abstract, references, index terms

The recent usage control model (UCON) is a foundation for next-generation access control models with distinguishing properties of decision continuity and attribute mutability. A usage control decision is determined by combining authorizations, obligations, and conditions, presented as UCONABC core models by Park and Sandhu. Based on these core aspects, we develop a formal model and logical specification of UCON with an extension of Lamport's temporal logic of actions (TL ...

Keywords: Access control, formal specification, security policy, usage control

13 Next generation access control models: A logical specification for usage control □

Xinwen Zhang, Jaehong Park, Francesco Parisi-Presicce, Ravi Sandhu
June 2004 **Proceedings of the ninth ACM symposium on Access control models and technologies**
Publisher: ACM Press
Full text available: pdf(145.03 KB)   Additional Information: full citation, abstract, references, index terms

Recently presented usage control (UCON) has been considered as the next generation access control model with distinguishing properties of decision continuity and attribute mutability. Ausage control decision is determined by combining authorizations, obligations, and conditions, presented as *UCONABC* core models by Park and Sandhu. Based on these core aspects, we develop afirst-order logic specification of UCON with Lamport's temporallogic of actions (TLA). The building blocks o ...

Keywords: access control, logic specification, security policy, usage control

14 Identification control: Owner-controlled information □

Carrie Gates, Jacob Slonim
August 2003 **Proceedings of the 2003 workshop on New security paradigms**
Publisher: ACM Press
Full text available: pdf(1.06 MB)   Additional Information: full citation, abstract, references

Information about individuals is currently maintained in many thousands of databases, with much of that information, such as name and address, replicated across multiple databases. However, this proliferation of personal information raises issues of privacy for the individual, as well as maintenance issues in terms of the accuracy of the information. Ideally, each individual would own, maintain and control his personal information, allowing access to those who needed at the time it was needed. O ...

Keywords: architecture, privacy, security

15 DRM experience: Digital rights management in a 3G mobile phone and beyond □

Thomas S. Messerges, Ezzat A. Dabbish
October 2003 **Proceedings of the 3rd ACM workshop on Digital rights management DRM '03**
Publisher: ACM Press
Full text available: pdf(306.59 KB)   Additional Information: full citation, abstract, references, citings, index terms

In this paper we examine how copyright protection of digital items can be securely managed in a 3G mobile phone and other devices. First, the basic concepts, strategies, and requirements for digital rights management are reviewed. Next, a framework for protecting digital content in the embedded environment of a mobile phone is proposed and the elements in this system are defined. The means to enforce security in this system are described and a novel "Family Domain" approach to content management ...

Keywords: MPEG-21, copyright protection, cryptography, digital content, digital rights management, embedded system, key management, mobile phone, open mobile alliance, security

16 DRM experience: Protecting digital archives at the Greek Orthodox Archdiocese of

America
Theo Nicolakis, Carlos E. Pizano, Bianca Prumo, Mitchell Webb
October 2003 **Proceedings of the 3rd ACM workshop on Digital rights management DRM '03**
Publisher: ACM Press

Full text available: pdf(1.25 MB)   Additional Information: full citation, abstract, references, citings, index terms

The Greek Orthodox Archdiocese of America~(GOA) has amassed a rich and varied collection of artifacts associated with two thousand years of religious and historical tradition, as well as more than a century of chronicles in America. The items in this archive include iconography, art, photographs, letters, and other memorabilia. The GOA has endeavored to digitize these assets in order to preserve them, while at the same time make them more accessible for appropriate and beneficial uses. Specifica ...

Keywords: content protection, digital asset management, digital image archive, digital rights management

17 **Systems: Towards multilateral secure digital rights distribution infrastructures**
André Adelsbach, Markus Rohe, Ahmad-Reza Sadeghi
November 2005 **Proceedings of the 5th ACM workshop on Digital rights management DRM '05**
Publisher: ACM Press
Full text available: pdf(332.27 KB)   Additional Information: full citation, abstract, references, index terms

Digital Rights Management (DRM) systems and applications appear to increasingly attract the interest of e-commerce business developers. DRM systems aim at secure distribution of digital content and commonly comprise a huge variety of different technologies. Current DRM systems focus mainly on right-holder's security needs and commonly neglect those of consumers. In particular, these systems even lack reliable means for users to verify that they purchase usage-rights on works (licenses) from the ...

Keywords: DRM, authorship, copyrights, digital distribution chains, licensing and transfer of rights, right ownership, usage rights

18 **Digital rights management: Support for multi-level security policies in DRM architectures**
Bogdan C. Popescu, Bruno Crispo, Andrew S. Tanenbaum
September 2004 **Proceedings of the 2004 workshop on New security paradigms**
Publisher: ACM Press
Full text available: pdf(127.41 KB)   Additional Information: full citation, abstract, references

Digital rights management systems allow copyrighted content to be commercialized in digital format without the risk of revenue loss due to piracy. Making such systems secure is no easy task, given that content needs to be protected while accessed through electronic devices in the hands of potentially malicious end-users; in this context, intrusion tolerance becomes a very useful system property. In this paper we point out a limitation shared by all current DRM architectures, namely their weaknes ...

19 **Systems and architectures: A DRM security architecture for home networks**
Bogdan C. Popescu, Bruno Crispo, Andrew S. Tanenbaum, Frank L.A.J. Kamperman
October 2004 **Proceedings of the 4th ACM workshop on Digital rights management**
Publisher: ACM Press
Full text available: pdf(222.46 KB)   Additional Information: full citation, abstract, references, index terms

This paper describes a security architecture allowing digital rights management in home networks consisting of consumer electronic devices. The idea is to allow devices to establish dynamic groups, so called "Authorized Domains", where legally acquired copyrighted content can seamlessly move from device to device. This greatly improves the end-user experience, preserves "fair use" expectations, and enables the development of new business models by content providers. Key to our design is a hyb ...

Keywords: DRM architectures, compliant CE devices, digital content protection

20 Adapting globus and kerberos for a secure ASCI grid

Patrick C. Moore, Wilbur R. Johnson, Richard J. Detry

November 2001 **Proceedings of the 2001 ACM/IEEE conference on Supercomputing (CDROM)**

Publisher: ACM Press

Full text available: pdf(143.26 KB)   Additional Information: full citation, abstract, references, index terms

Porting a complex secure application from one security infrastructure to another is often difficult or impractical. Grid security associated with the Globus toolkit is supported by a Grid Security Infrastructure (GSI) based on a Public Key Infrastructure where users authenticate to the grid using X509 certificates. Kerberos security is based on a trusted third party, secret key infrastructure where users authenticate using encrypted tickets. However, both GSI and Kerberos provide a Generic Secur ...

Keywords: ASCI, GSSAPI, globus, grid, kerberos, security